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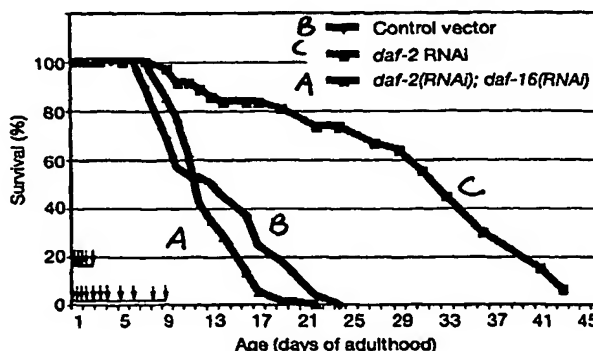
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(54) Title: **EUKARYOTIC GENES INVOLVED IN ADULT LIFESPAN REGULATION**



(57) Abstract: The present invention relates to regulation of lifespan in eukaryotes. More particularly, one aspect of the present invention is the identification of genes, gene products, and genes in pathways controlled by such genes and gene products, using RNAi and microarray analysis, that regulate lifespan (*e.g.*, extend or truncate adult lifespan) in eukaryotes such as invertebrates (*e.g.*, *C. elegans*), plants, and mammals, *e.g.*, humans. The invention further relates to methods for identifying and using agents, including small molecule chemical compositions, antibodies, antisense nucleic acids, and ribozymes, that regulate, *e.g.*, enhance, adult lifespan via modulation of aging associated proteins; as well as to the use of expression profiles, promoters, reporter genes, markers, and compositions in diagnosis and therapy related to lifespan extension, life expectancy, and aging. The present invention also relates to gene therapy involving lifespan associated genes.



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